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BONSHOCK, DENNIS G	
ART UNIT	PAPER NUMBER
2173	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/870,614	BROUSSARD, SCOTT J.	
	Examiner	Art Unit	
	DENNIS G. BONSHOCK	2173	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 July 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date. _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

FINAL ACTION

Response to Amendment

It is hereby acknowledged that the following papers have been received and placed on record in the file: amendment as received on 7-2-2009.

Claims 1-22 have been examined.

Status of Claims:

Claims 1, 2, 5, 6, 20, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over DiNicola et al., Patent #4,951,229, hereinafter DiNicola, Ross, Patent Number: 5,838,336, and Nagata, Patent #6,522,341.

Claims 3, 4, and 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over DiNicola, Ross, Patent Number: 5,838,336, Nagata, Patent #6,522,341, and Fowler, *Mixing Heavy and Light Components*.

Claims 11-13, 18, 19, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over DiNicola, Sun Microsystems, *Introducing Swing,* hereinafter Sun, Ross, Patent Number: 5,838,336, and Nagata, Patent #6,522,341.

Claims 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over DiNicola, Ross, Nagata, Fowler, and Sun.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 2, 5, 6, 20, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over DiNicola et al., Patent #4,951,229, hereinafter DiNicola, Ross, Patent Number: 5,838,336, and Nagata, Patent #6,522,341.

3. With regard to claim 1, which teaches a display system, comprising: a display, DiNicola teaches, in column 2, line 68, the use of a display. With regard to claim 1 further teaching a display buffer coupled to the display, DiNicola teaches, in column 2, line 59 through column 3, line 16, the use of several different buffers used in the display of an image. With regard to claim 1, further teaching a processor adapted to execute an application program; DiNicola teaches, in column 3, lines 7-10, the use of a processor in the application program. With regard to claim 1, further teaching producing images on the display where the images are either in a first mode by forwarding in sequence to the display or in a second mode, compiled as a combination image of at least one image drawn over another image, DiNicola teaches, in column 2, line 59 through column 3, line 16, specifically column 3, lines 10-13, a system that can be configured to either send images to the display separately or to combine two or more of the images and send them as a composite display image. With regard to claim 1, further teaching presenting the image to the buffer before forwarding, DiNicola teaches, in column 3, lines 62-68 and column 5, lines 18-32, buffering the images before sending to the display.

DiNicola, however, doesn't specifically teach a second mode buffering the combination image prior to display. Ross teaches a system for combining images for display via a frame buffer (see column 1, lines 36-41, column 3, lines 50-67, and column

4, lines 12-16 and in figure 2), similar to that of DiNicola, but further teaches two distinct modes where in the “hardware cursor mode”/"overlay mode” each image is transmitted din sequence to the display screen (ie: the on-screen memory is sent then the cursor memory is sent overlaying the on-screen memory) and alternately in a "normal mode" each two images a are buffered in a common on-screen memory (defined as a buffer) for display (see column 1, lines 36-41, column 3, lines 50-67, and column 4, lines 12-16 and in figure 2). It would have been obvious to one of ordinary skill in the art, having the teachings of DiNicola and Ross before him at the time the invention was made to modify the image combination system of DiNicola to include the combinational mode with pre buffering of Ross. One would have been motivated to make such a combination because this allows for one image to be transmitted to the display rather than two (easing the transmission beneficial in non-video related image processing).

DiNicola and Ross teach displaying images separately on a display and combining the into a composite image and placing it in frame buffer for display (see column 2, lines 25-39 and column 2, line 66 through column 3, line 13), however, don’t specifically teach combining the two images into one image and buffering this combined image prior to display. Nagata teaches a system in which multiple images are combined for display (see abstract), similar to that of DiNicola and Ross, but further teaches a the steps of a mixer mixing the two images and then transmitting the combined image to a buffer prior to displaying the image (see column 2, line 15 through column 3, line 4 and in figures 1and 2). It would have been obvious to one of ordinary skill in the art, having the teachings of DiNicola, Ross, and Nagata before him at the

time the invention was made to modify the image combination system of DiNicola and Ross to include the combination of images followed by buffering the combined image, followed by display, as is done in Nagata. One would have been motivated to make such a combination because this allows for reuse of the displayed image for further additions to the display space (as would be the case in animation / video environments).

4. With regard to claim 2, which teaches the application program disables or enables buffering of the images by configuring the processor to execute in either or the first or second mode, DiNicola teaches, in column 2, line 59 through column 3, line 16, specifically column 3, lines 10-13, a system that can be configured to either send images to the display separately or to combine two or more of the images and send them as a composite display image, there for providing them with the optional intermediate buffer (see column 5, lines 18-27).

5. With regard to claim 5, which teaches a computer-readable memory, comprising: an operating system, DiNicola teaches, in column 3, line 50 an operating system. With regard to claim 5, further teaching an application program running on code compatible with the operating system, DiNicola teaches, in column 1, lines 6-15, an application program running on code compatible with the operating system. With regard to claim 5, further teaching a software component invoked by an application program that produces images on the display where the images are either forwarded in sequence to the display or are compiled as a combination image of at least on image drawn over another image, DiNicola teaches, in column 2, line 59 through column 3, line 16, specifically column 3,

lines 10-13, a system that can be configured to either send images to the display separately or to combine two or more of the images and send them as a composite display image. With regard to claim 5, further teaching the optional buffering of the sequence of images as a combination image before sending the combination image to the display, DiNicola teaches, in column 3, lines 62-68 and column 5, lines 18-32, an intermediate buffer that is not required, as a matter of efficiency, but mentioned in the reference.

DiNicola, however, doesn't specifically teach a second mode buffering the combination image prior to display. Ross teaches a system for combining images for display via a frame buffer (see column 1, lines 36-41, column 3, lines 50-67, and column 4, lines 12-16 and in figure 2), similar to that of DiNicola, but further teaches two distinct modes where in the "hardware cursor mode"/"overlay mode" each image is transmitted din sequence to the display screen (ie: the on-screen memory is sent then the cursor memory is sent overlaying the on-screen memory) and alternately in a "normal mode" each two images a are buffered in a common on-screen memory (defined as a buffer) for display (see column 1, lines 36-41, column 3, lines 50-67, and column 4, lines 12-16 and in figure 2). It would have been obvious to one of ordinary skill in the art, having the teachings of DiNicola and Ross before him at the time the invention was made to modify the image combination system of DiNicola to include the combinational mode with pre buffering of Ross. One would have been motivated to make such a combination because this allows for one image to be transmitted to the display rather than two (easing the transmission beneficial in non-video related image processing).

DiNicola and Ross teach displaying images separately on a display and combining the into a composite image and placing it in frame buffer for display (see column 2, lines 25-39 and column 2, line 66 through column 3, line 13), however, don't specifically teach combining the two images into one image and buffering this combined image prior to display. Nagata teaches a system in which multiple images are combined for display (see abstract), similar to that of DiNicola and Ross, but further teaches a the steps of a mixer mixing the two images and then transmitting the combined image to a buffer prior to displaying the image (see column 2, line 15 through column 3, line 4 and in figures 1and 2). It would have been obvious to one of ordinary skill in the art, having the teachings of DiNicola, Ross, and Nagata before him at the time the invention was made to modify the image combination system of DiNicola and Ross to include the combination of images followed by buffering the combined image, followed by display, as is done in Nagata. One would have been motivated to make such a combination because this allows for reuse of the displayed image for further additions to the display space (as would be the case in animation / video environments).

6. With regard to claim 6, which teaches object code being part of a graphical user interface associated with the application program, DiNicola teaches, in column 3, lines 10-13, a graphical user interface associated with the application program.

26. With regard to claim 20, which teaches the processor executing in the first mode when the display is directly coupled to the processor, DiNicola teaches, in column 4, lines 31-53, column 5, lines 4-17, and figures 1 and 6, the processor being able to

execute in two modes, one which provides the images as combined image and one which provides individual images to the display. DiNicola, Ross, and Nagata, however, doesn't state that the selection is made due to the relative location of the display. It would have been obvious to one of ordinary skill in the art, having the teachings of DiNicola, Ross, and Nagata before him at the time the invention was made to modify invention of DiNicola, Ross, and Nagata to make the selection based on the relative location of the display. One would have been motivated to make such a combination because remote displays require transmission over what is some times slow medium, which would be less efficient if a plurality of images were sent as opposed to a combined image.

27. With regard to claim 21, which teaches the processor executing in the second mode when the display is remotely coupled to the processor, DiNicola teaches, in column 4, lines 31-53, column 5, lines 4-17, and figures 1 and 6, the processor being able to execute in two modes, one which provides the images as combined image and one which provides individual images to the display. DiNicola, Ross, and Nagata, however, doesn't state that the selection is made due to the relative location of the display. It would have been obvious to one of ordinary skill in the art, having the teachings of DiNicola, Ross, and Nagata before him at the time the invention was made to modify invention of DiNicola, Ross, and Nagata to make the selection based on the relative location of the display. One would have been motivated to make such a combination because remote displays require transmission over what is some times

slow medium, which would be less efficient if a plurality of images were sent as opposed to a combined image.

8. Claims 3, 4, and 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over DiNicola, Ross, Patent Number: 5,838,336, Nagata, Patent #6,522,341, and Fowler, *Mixing Heavy and Light Components*.

9. With regard to claim 3, DiNicola teaches the system that either transmits images to the display sequentially or as a combination image (see column 3, lines 10-13) and the use of 3 images layered on top of one another in a combination image (see column 5, lines 32-46), but does not teach images comprising frame, panel, and button images. Fowler teaches Mixing Swing an AWT in the same application program (see page 1, paragraph 2) as is taught in the specification of the case, but further teaches the use of Frame, Panel, and Button images (see Z-order limitations (page 5), and Swing scroll pane (page 6)). It would have been obvious to one of ordinary skill in the art, having the teachings of DiNicola, Ross, Nagata, and Fowler before him at the time the invention was made to modify the system of transmitting images either in sequence or as a combined image of DiNicola, Ross, and Nagata with the Frame, Panel, and Button images of Fowler. One would have been motivated to make such a combination because these are elements implemented in Swing which is referred to in the specification on page 34, the use of Java would allow for portability of the image display system, this would prove useful if the remote system was run on a different operating

system, and because Frame, Panel, and Button images are images that are frequently transferred to displays.

10. With regard to claim 4, DiNicola teaches the system that either transmits images to the display sequentially or as a combination image (see column 3, lines 10-13), but does not teach the use of Java. Fowler teaches Mixing Swing an AWT in the same application program (see page 1, paragraph 2) as is taught in the specification of the case, but further teaches the use Java see page 2, paragraph 4. It would have been obvious to one of ordinary skill in the art, having the teachings of DiNicola, Ross, Nagata, and Fowler before him at the time the invention was made to modify the system of transmitting images either in sequence or as a combined image of DiNicola, Ross, and Nagata, to include the API system using Java of Fowler. One would have been motivated to make such a combination because Swing is referred to in the specification on page 34, and because the use of Java would allow for portability of the image display system, this would prove useful if the remote system was run on a different operating system.

11. With regard to claim 7, DiNicola teaches the system that either transmits images to the display sequentially or as a combination image (see column 3, lines 10-13), but does not teach a software component comprising an API of code, which translates between code within the application program and the operating system. Fowler teaches Mixing Swing an AWT in the same application program (see page 1, paragraph 2) as is taught in the specification of the case, and further teaches the use Java see page 2, paragraph 4. It is inherently known in the art that Swing and AWT are application

program interfaces, which are defined as a set of routines that translate between an application program and a computer's operating system (see Microsoft Computer Dictionary Fifth Edition, page 33). It would have been obvious to one of ordinary skill in the art, having the teachings of DiNicola, Ross, Nagata, and Fowler before him at the time the invention was made to modify the system of transmitting images either in sequence or as a combined image of DiNicola, Ross, and Nagata, to include use of an API as did Fowler. One would have been motivated to make such a combination because Swing is referred to in the specification on page 34, and because the use of Java would allow for portability of the image display system, this would prove useful if the remote system was run on a different operating system.

12. With regard to claim 8, DiNicola teaches the system that either transmits images to the display sequentially or as a combination image (see column 3, lines 10-13), but does not teach an API that emulates that of a second API based on a windows-based version of the operating system. Fowler teaches Mixing Swing and AWT in the same application program (see page 1, paragraph 2), as is taught in the specification of the case, and further teaches this being a windows based operating system (see the figure on page 7.). It would have been obvious to one of ordinary skill in the art, having the teachings of DiNicola, Ross, Nagata, and Fowler before him at the time the invention was made to modify the system of transmitting images either in sequence or as a combined image of DiNicola, Ross, and Nagata, to include use of two different APIs as did Fowler. One would have been motivated to make such a combination because Swing is referred to in the specification on page 34, and because the use of Java would

allow for portability of the image display system, this would prove useful if the remote system was run on a different operating system.

13. With regard to claim 9, DiNicola teaches the system that either transmits images to the display sequentially or as a combination image (see column 3, lines 10-13), but does not teach the use of a second API, that of AWT. Fowler teaches Mixing Swing an AWT in the same application program (see page 1, paragraph 2) as is taught in the specification of the case. It would have been obvious to one of ordinary skill in the art, having the teachings of DiNicola, Ross, Nagata, and Fowler before him at the time the invention was made to modify the system of transmitting images either in sequence or as a combined image of DiNicola, Ross, and Nagata, to include use of two different APIs, including AWT as did Fowler. One would have been motivated to make such a combination because Swing is referred to in the specification on page 34, and because the use of Java would allow for portability of the image display system, this would prove useful if the remote system was run on a different operating system.

14. With regard to claim 10, DiNicola teaches the system that either transmits images to the display sequentially or as a combination image (see column 3, lines 10-13), but does not teach the application program being written in Java. Fowler teaches Mixing Swing an AWT in the same application program (see page 1, paragraph 2) as is taught in the specification of the case, and further teaches the use Java see page 2, paragraph 4. It would have been obvious to one of ordinary skill in the art, having the teachings of DiNicola, Ross, Nagata, and Fowler before him at the time the invention was made to modify the system of transmitting images either in sequence or as a

combined image of DiNicola, Ross, and Nagata, to include use of Java as did Fowler. One would have been motivated to make such a combination because Swing is referred to in the specification on page 34, where Swing is said to default to generating a combined image, and because the use of Java would allow for portability of the image display system, this would prove useful if the remote system was run on a different operating system.

15. Claims 11-13, 18, 19, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over DiNicola, Sun Microsystems, *Introducing Swing,* hereinafter Sun, Ross, Patent Number: 5,838,336, and Nagata, Patent #6,522,341.

16. With regard to claims 11 and 18, DiNicola teaches the system that either transmits images to the display sequentially or as a combination image (see column 3, lines 10-13), but does not teach the operating system comprising a Windows, Unix, or OS/2 computer operating system. Sun teaches Swing which is stated in the specification of the application to default to buffering it's output, similar to that of the DiNicola, Ross, Nagata, but further teaches on page 1, paragraph 4, running under operating systems such as Windows, Unix, and so on. It would have been obvious to one of ordinary skill in the art, having the teachings of DiNicola, Ross, Nagata, and Sun before him at the time the invention was made to modify the system of transmitting images either in sequence or as a combined image of DiNicola, Ross, Nagata, to include use of Java as did Sun. One would have been motivated to make such a combination because Swing is referred to in the specification on page 34, where Swing

is said to default to generating a combined image, and because the use of Java would allow for portability of the image display system, this would prove useful if the remote system was run on a different operating system.

17. With regard to claim 12, DiNicola teaches, in column 1, lines 6-15, an application program running on code compatible with the operating system, and a system that either transmits images to the display sequentially or as a combination image (see column 3, lines 10-13), the optional buffering of the sequence of images as a combination image before sending the combination image to the display (see column 3, lines 62-68 and column 5, lines 18-32), but doesn't teach creating a graphical representation of the object using an interface independent of the operating system. Sun teaches Swing which is stated in the specification of the application to default to buffering it's output, similar to that of the DiNicola, but further teaches on page 1, paragraphs 4 and 5, swing being an API that can be independent of the operating system. It would have been obvious to one of ordinary skill in the art, having the teachings of DiNicola and Sun before him at the time the invention was made to modify the system of transmitting images either in sequence or as a combined image of DiNicola to include use of Java and it's cross platform component for Swing, as did Sun. One would have been motivated to make such a combination because Swing is referred to in the specification on page 34, where Swing is said to default to generating a combined image, and because the use of Java would allow for portability of the image display system, this would prove useful if the remote system was run on a different operating system.

DiNicola and Sun, however, doesn't specifically teach a second mode buffering the combination image prior to display. Ross teaches a system for combining images for display via a frame buffer (see column 1, lines 36-41, column 3, lines 50-67, and column 4, lines 12-16 and in figure 2), similar to that of DiNicola and Sun, but further teaches two distinct modes where in the "hardware cursor mode"/"overlay mode" each image is transmitted din sequence to the display screen (ie: the on-screen memory is sent then the cursor memory is sent overlaying the on-screen memory) and alternately in a "normal mode" each two images a are buffered in a common on-screen memory (defined as a buffer) for display (see column 1, lines 36-41, column 3, lines 50-67, and column 4, lines 12-16 and in figure 2). It would have been obvious to one of ordinary skill in the art, having the teachings of DiNicola, Sun and Ross before him at the time the invention was made to modify the image combination system of DiNicola and Sun to include the combinational mode with pre buffering of Ross. One would have been motivated to make such a combination because this allows for one image to be transmitted to the display rather than two (easing the transmission beneficial in non-video related image processing).

DiNicola, Sun and Ross, however, don't specifically teach combining the two images into one image and buffering this combined image prior to display. Nagata teaches a system in which multiple images are combined for display (see abstract), similar to that of DiNicola, Sun and Ross, but further teaches a the steps of a mixer mixing the two images and then transmitting the combined image to a buffer prior to displaying the image (see column 2, line 15 through column 3, line 4 and in figures 1and

2). It would have been obvious to one of ordinary skill in the art, having the teachings of DiNicola, Sun, Ross, and Nagata before him at the time the invention was made to modify the image combination system of DiNicola, Sun and Ross to include the combination of images followed by buffering the combined image, followed by display, as is done in Nagata. One would have been motivated to make such a combination because this allows for reuse of the displayed image for further additions to the display space (as would be the case in animation / video environments).

18. With regard to claim 13, which teaches object code being part of a graphical user interface associated with the application program, DiNicola further teaches, in column 3, lines 10-13, a graphical user interface associated with the application program.

19. With regard to claim 19, DiNicola teaches a computer-readable storage device, comprising: an application program running under an operating system (see column 1, lines 6-15), an object created at runtime by the application program (see column 2, line 59 through column 3, lines 16; specifically column 3, lines 10-13), and creating a graphical representation of the object; enabling or disable buffering of the graphical representation of the object to a memory storage area prior to displaying the graphical representation, as directed by the application program (see column 2, line 59 through column 3, lines 16; specifically column 3, lines 10-13, and column 5, lines 18-32). DiNicola, however, doesn't teach a windows-based operating system or an interface independent of the operating system. Sun teaches Swing that is stated in the specification, as defaulting to buffering it's output, similar to that of DiNicola, but further

teaches a windows-based operating system (see page 1, paragraph 4), and an interface that is independent of the operating system (see page 1, paragraphs 4 and 5). It would have been obvious to one of ordinary skill in the art, having the teachings of DiNicola and Sun before him at the time the invention was made to modify the system of transmitting images either in sequence or as a combined image of DiNicola to include use of Java and it's cross platform component for Swing, as did Sun. One would have been motivated to make such a combination because Swing is referred to in the specification on page 34, where Swing is said to default to generating a combined image, and because the use of Java would allow for portability of the image display system, this would prove useful if the remote system was run on a different operating system.

DiNicola and Sun, however, doesn't specifically teach a second mode buffering the combination image prior to display. Ross teaches a system for combining images for display via a frame buffer (see column 1, lines 36-41, column 3, lines 50-67, and column 4, lines 12-16 and in figure 2), similar to that of DiNicola and Sun, but further teaches two distinct modes where in the "hardware cursor mode"/"overlay mode" each image is transmitted din sequence to the display screen (ie: the on-screen memory is sent then the cursor memory is sent overlaying the on-screen memory) and alternately in a "normal mode" each two images a are buffered in a common on-screen memory (defined as a buffer) for display (see column 1, lines 36-41, column 3, lines 50-67, and column 4, lines 12-16 and in figure 2). It would have been obvious to one of ordinary skill in the art, having the teachings of DiNicola, Sun and Ross before him at the time

the invention was made to modify the image combination system of DiNicola and Sun to include the combinational mode with pre buffering of Ross. One would have been motivated to make such a combination because this allows for one image to be transmitted to the display rather than two (easing the transmission beneficial in non-video related image processing).

DiNicola, Sun and Ross, however, don't specifically teach combining the two images into one image and buffering this combined image prior to display. Nagata teaches a system in which multiple images are combined for display (see abstract), similar to that of DiNicola, Sun and Ross, but further teaches a the steps of a mixer mixing the two images and then transmitting the combined image to a buffer prior to displaying the image (see column 2, line 15 through column 3, line 4 and in figures 1and 2). It would have been obvious to one of ordinary skill in the art, having the teachings of DiNicola, Sun, Ross, and Nagata before him at the time the invention was made to modify the image combination system of DiNicola, Sun and Ross to include the combination of images followed by buffering the combined image, followed by display, as is done in Nagata. One would have been motivated to make such a combination because this allows for reuse of the displayed image for further additions to the display space (as would be the case in animation / video environments).

28. With regard to claim 22, determining if the application program is operating in remote or direct mode, and creating a peer component to enable or disable buffering of the graphical representation of the object based on the determination made by the software component, DiNicola teaches, in column 4, lines 31-53, column 5, lines 4-17,

and figures 1 and 6, the processor being able to execute in two modes, as selected by the selector [32], one which provides the images as combined image and one which provides individual images to the display. DiNicola, Sun and Ross, however, don't state that the selection is made due to the relative location of the display. It would have been obvious to one of ordinary skill in the art, having the teachings of DiNicola, Sun and Ross before him at the time the invention was made to modify invention of DiNicola, Sun and Ross to make the selection based on the relative location of the display. One would have been motivated to make such a combination because remote displays require transmission over what is some times slow medium, which would be less efficient if a plurality of images were sent as opposed to a combined image.

20. Claims 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over DiNicola, Ross, Nagata, Fowler, and Sun.

21. With regard to claim 14, DiNicola, Ross, Nagata, and Sun teach the system that either transmits images to the display sequentially or as a combination image (see column 3, lines 10-13) and the use of 3 images layer on top of one another in a combination image (see column 5, lines 32-46), but does not teach a software component comprising an API of code which translates between code within the application program and the operating system. Fowler teaches Mixing Swing an AWT in the same application program (see page 1, paragraph 2) as is taught in the specification of the case, and further teaches the use Java see page 2, paragraph 4. It

is inherently known in the art that Swing and AWT are application program interfaces, which are defined as a set of routines that translate between an application program and a computer's operating system (see Microsoft Computer Dictionary Fifth Edition, page 33). It would have been obvious to one of ordinary skill in the art, having the teachings of DiNicola, Ross, Nagata, Sun, and Fowler before him at the time the invention was made to modify the system of transmitting images either in sequence or as a combined image of DiNicola, Ross, Nagata, and Sun to include use of an API as did Fowler. One would have been motivated to make such a combination because Swing is referred to in the specification on page 34, and because the use of Java would allow for portability of the image display system, this would prove useful if the remote system was run on a different operating system.

22. With regard to claim 15, DiNicola, Ross, Nagata, and Sun teach the system that either transmits images to the display sequentially or as a combination image (see column 3, lines 10-13) and the use of 3 images layer on top of one another in a combination image (see column 5, lines 32-46), but does not teach an API that emulates that of a second API based on a windows based operating system. Fowler teaches Mixing Swing and AWT in the same application program (see page 1, paragraph 2), as is taught in the specification of the case, and further teaches this being a windows based operating system (see the figure on page 7). It would have been obvious to one of ordinary skill in the art, having the teachings of DiNicola, Ross, Nagata,, Sun, and Fowler before him at the time the invention was made to modify the system of transmitting images either in sequence or as a combined image of DiNicola,

Ross, Nagata, and Sun to include use of two different APIs as did Fowler. One would have been motivated to make such a combination because Swing is referred to in the specification on page 34, and because the use of Java would allow for portability of the image display system, this would prove useful if the remote system was run on a different operating system.

23. With regard to claim 16, DiNicola, Ross, Nagata, and Sun teach the system that either transmits images to the display sequentially or as a combination image (see column 3, lines 10-13) and the use of 3 images layer on top of one another in a combination image (see column 5, lines 32-46), but does not teach the use of a second API, that of AWT. Fowler teaches Mixing Swing an AWT in the same application program (see page 1, paragraph 2) as is taught in the specification of the case. It would have been obvious to one of ordinary skill in the art, having the teachings of DiNicola, Ross, Nagata,, Sun, and Fowler before him at the time the invention was made to modify the system of transmitting images either in sequence or as a combined image of DiNicola, Ross, Nagata, and Sun to include use of two different APIs, including AWT as did Fowler. One would have been motivated to make such a combination because Swing is referred to in the specification on page 34, and because the use of Java would allow for portability of the image display system, this would prove useful if the remote system was run on a different operating system.

24. With regard to claim 17, DiNicola, Ross, Nagata, and Sun teach the system that either transmits images to the display sequentially or as a combination image (see column 3, lines 10-13) and the use of 3 images layer on top of one another in a

combination image (see column 5, lines 32-46), but does not teach the application program being written in Java. Fowler teaches Mixing Swing an AWT in the same application program (see page 1, paragraph 2) as is taught in the specification of the case, and further teaches the use Java see page 2, paragraph 4. It would have been obvious to one of ordinary skill in the art, having the teachings of DiNicola, Ross, Nagata,, Sun, and Fowler before him at the time the invention was made to modify the system of transmitting images either in sequence or as a combined image of DiNicola, Ross, Nagata, and Sun to include use of Java as did Fowler. One would have been motivated to make such a combination because Swing is referred to in the specification on page 34, where Swing is said to default to generating a combined image, and because the use of Java would allow for portability of the image display system, this would prove useful if the remote system was run on a different operating system.

Response to Arguments

29. The arguments filed on 7-2-2009 have been fully considered but they are not persuasive. Reasons set forth below.

The Applicant argues that DiNicola doesn't describe the manner either sequentially or combined, in which the images are forwarded to the display but rather merely that which ultimately ends up on the display.

In response, the Examiner respectfully submits that DiNicola teaches in column 2, lines 25-39 and in column 2, line 66 through column 3, line 13, displaying images separately on a display or combining them into a composite image in the frame buffer

prior to displaying. This teaching is further supplemented by Nagata who further teaches the steps of a mixer mixing the two images and then transmitting the combined image to a buffer prior to displaying the image (see column 2, line 15 through column 3, line 4 and in figures 1and 2).

The Applicant argues that DiNicola dos not suggest a system in which images are forwarded in sequence to the display, DiNicola's bit planes 24, 26, 28, and 30 are not "buffers" storing “images”.

In response, the Examiner respectfully submits that column 6, lines 18-20, specifically describes these planes 24, 26, 28 and 30 as buffers.

The Applicant argues that the technology is irrelevant because DiNicola’s bit planes do not represent images but rather merely elements of images.

In response, the Examiner respectfully submits that image elements of an image are images themselves (see column 2, lines 25-39 and in column 2, line 66 through column 3, line 13)

The Applicant argues that DiNicola teaches away from buffering the composite image prior to displaying.

In response, the Examiner respectfully submits that DiNicola teaches several different embodiments, but does teach in column 2, lines 25-39 and in column 2, line 66 through column 3, line 13, a composite image being buffered. This teaching is further

supplemented by Nagata who further teaches the steps of a mixer mixing the two images and then transmitting the combined image to a buffer prior to displaying the image (see column 2, line 15 through column 3, line 4 and in figures 1and 2).

The Applicant argues that the "hardware cursor" and “overlay” modes of Ross are not analogous to the applicants' first and second modes because in Ross the "overlay" mode represents the display of alternative images rather than a composite image.

In response, the Examiner respectfully submits that Ross's displaying overlaying images in the same area of the display space simultaneously, which shows a combined image on the display.

The Applicant argues that Nagata doesn't transmit the combined image to a buffer prior to displaying the image.

In response, the Examiner respectfully submits that Nagata further teaches the steps of a mixer mixing the two images and then transmitting the combined image to a buffer prior to displaying the image (see column 2, line 15 through column 3, line 4 and in figures 1and 2). Specifically it can be seen from the figures how the combination is followed by a memory buffering area prior to the display being affected.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DENNIS G. BONSHOCK whose telephone number is (571)272-4047. The examiner can normally be reached on Monday - Friday, 5:30 a.m. - 3:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kieu Vu can be reached on (571) 272-4057. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dennis G. Bonshock/
Primary Examiner, Art Unit 2173
9-30-09
dgb